ABSTRACT

A CVD apparatus produces plasma to generate
radicals and uses the radicals, silane, and the like so
as to deposit films on substrates in a vacuum vessel 12.
The vacuum vessel has a partitioning wall section 14 for
5   separating the inside thereof into a plasma-generating
space 15 and a film deposition process space 16. The
partitioning wall section has a plurality of through-
holes 25 and diffusion holes 26. An interior space 24
receives the silane or the like fed into the film
10   deposition process space through diffusion holes 16.
The radicals produced in the plasma-generating space are
fed into the plasma-generating space through the
through-holes. The through-holes satisfy the condition
of $uL/D > 1$, where u represents the gas flow velocity in
15   the through-holes, L represents the effective length of
the through-holes, and D represents the inter-diffusion
coefficient.